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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/026,674

12/27/2001

Charles D. Kowanacki

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1609 7590 04/23/2007

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EXAMINER

NGUYEN, HOANG M

ART UNIT

PAPER NUMBER

3748

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

04/23/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/026,674

Applicant(s)

KOWANACKI ET AL

Examiner

Hoang M. Nguyen

Art Unit

3748

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 January 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 4, 6-8 and 10 is/are allowed.
- 6) ☒ Claim(s) 1-3, 5, 9 and 11-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

Applicant's amendment and declaration dated January 06, 2006, has been fully considered.

Applicant has amended his declaration to clearly define the error, the rejections based on 37 CFR 1.75(a)(1) has been withdrawn.

Applicant has argued that the air canister in Neukomm is not rechargeable because it's a commercially available cartridge. The Examiner disagrees. Neukomm discloses in column 4, lines 21-24 that the reservoir 13 can contain suitable propellant gas to drive the engine, and the carbon dioxide cartridge is only one option. Furthermore, please note the term "rechargeable" is very broad that read on the canister of Neukomm, and that all canisters are rechargeable if needed including the canister in Neukomm.

Applicant has argued that the canister in Akiyama et al is not rigidly or directly connected with the engine cylinder 12. The Examiner agrees. However, a new ground of rejection has been made based on newly discovered references from further searches.

Claim 5 is objected to because on line 2 the word "mean s" is misspelled.

Claims 5, 9, 21-26 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 5, it's unclear if the retaining means is the same as the retaining cap bracket in claim 4.

In claim 9, it seems this claim should be dependent from claim 7 because claim 9 has all the limitations from claim 7, not claim 2.

In claim 21, it's unclear which continuous piece of material Applicant recites. The manifold 18 is not part of the engine cylinder.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, 11-13, 16-18, are rejected under 35 U.S.C. 102(b) as being anticipated by US 4162614 (Holleyman).

Holleyman discloses an air engine comprising many cylinders, an inlet manifold 38 being rigidly and directed connected with said cylinders and a rechargeable air canister 28, said canister 28 having an inlet check valve 36 to recharge air into the tank, the manifold 38 having regulator valves 40 for controlling the air input into the engine.

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Claims 1, 3, 11-13, 16-18, are rejected under 35 U.S.C. 102(b) as being anticipated by US 819653 (Hawke).

Hawke discloses an air engine comprising a cylinder 12, an inlet manifold 14 being rigidly and directly connected with said cylinder and a rechargeable air canister 2, said canister 2 having a pump to recharge air into the tank, the manifold 14 having regulator valve 15 for controlling the air input into the engine. Please note the inlet manifold of this invention is simply a pipe; therefore, the pipe 14 in Hawke can be used to meet the claimed chamber/manifold.

Claims 21-26, are rejected under 35 U.S.C. 102(b) as being anticipated by US 4159705 (Jacoby).

Jacoby discloses an air engine comprising a cylinder 15 and a piston 22, an inlet manifold 16 being rigidly and directly connected with said cylinder and a rechargeable air canister 38, said canister 38 having two channels forming two inlets connected with a hand pump 40 to recharge air into the tank, the manifold 16 having regulator valve 48 for controlling the air input into the engine. Please note manifold 16 is continuous material and forms a part of the cylinder 15.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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Claims 1-3, 11-26, are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. 4614085 (Neukomm) in view of U.S. 4329806 (Akiyama et al). Neukomm discloses a pneumatic engine comprising an inflatable compressed gas canister 13, an inlet manifold (crankshaft housing 4) for rigidly and directly connected with said canister and cylinder, a means including a valve 17 and a check valve 9 which can be open to allow a continuous flow of air from the canister to the engine. Neukomm does not disclose 1) air is the working fluid, and 2) the air canister is rechargeable in working position. Akiyama et al discloses a pneumatic engine comprising a rechargeable canister 20, an engine cylinder 12, a valve 90, the chamber formed by reference numeral 46 clearly has two channels, one channel 42 is connected with the canister 20, and a second channel 48 being connected to said valve, and also a third channel 64 is also connected to said valve 90. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to use air as the working fluid in Neukomm as taught by Akiyama for the purpose of achieving appropriate work output and because air is a less expensive source of energy, and the valves having two channels in Neukomm as taught by Akiyama et al for the purpose of being able to recharge the air canister during operating condition.

Claims 4, 6-8, 10, are allowed.

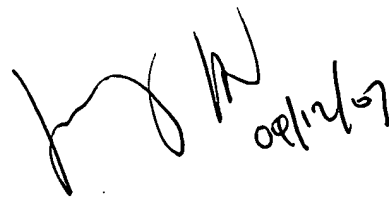
Claims 5, 9, would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

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Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Examiner Nguyen whose telephone number is (571) 272-4861. The examiner can normally be reached on Tuesday--Friday from 12:30 AM to 10:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas E. Denion can be reached on 571-272-4859. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'H.M. Nguyen', with the date '04/12/07' written to its right.

HOANG NGUYEN
PRIMARY EXAMINER
ART UNIT 3748

Hoang Minh Nguyen
4/12/2007